Addendum/Lessons Learned to the R5.2.2 Installation Instructions
Version date 01/30/03

General Information:

1. R5.2.2.1 was given approval 11/4/02 and must be installed after the R5.2.2 upgrade to fix some critical and major DRs. It should be installed on the same day as the R5.2.2 upgrade. The signed mod note can be found on the following web page:

    http://www.ops1.nws.noaa.gov/awips_softwre.htm

    Critical: As mentioned above, ALL sites should install R5.2.2.1 on the day of the R5.2.2 upgrade to receive fixes for critical and major DRs. However, sites should wait 48 hours before continuing with the localization and the push script steps in the R5.2.2.1 mod note. If this is not done, the push script will take about 3 ½ hours to complete because it will push all localization file changes for the last 24 hours. This will include the many R5.2.2 and as well as the R5.2.2.1 changes. Note that until the localization is run and push completed, DR 11368- RCS Auto-update problem (5.2.2 version of 5.2.1.3 patch A100254) will not be activated. Fortunately, all other fixes will take effect without the localization and push.

2. Operational WFOs

    The update to the AVNFPS to fix several problems with the AVNFPS can be downloaded and installed after the R5.2.2 upgrade. See Preface #1, Part 12 8C, and attachment "k" (*AVNFPS Software Modification and Enhancement*) of this addendum for more specific information. Operational WFOs that plan to use this program should install this update right after the R5.2.2 upgrade.

3. OCONUS sites: AFC, GUM, HFO, PBP, and SJU   11/15/02

    It appears that FSL had placed a site-specific file (i.e., acqPatternAddOns.txt) in the R5.2.2 baseline for OCONUS sites. Unfortunately, this causes the "site-owned" file to be overwritten. To correct this oversight, NGIT saved a copy of the current version of the file under the following name:

    /awips/fxa/data/localization/LLL/LLL-acqPatternAddOns.txt.pre522

    A Post Installation step is added to this R5.2.2 addendum in part 12, procedure 8 (Miscellaneous Procedures), p12-6, new procedure "D." The effected OCONUS sites must perform this procedure as part of the R5.2.2 upgrade.

4. R5.2.2.2 is available to install after you install R5.2.2, and R5.2.2.1.   1/30/03
    It has 16 fixes. The mod not can be obtained from same web page as R5.2.2.1

Preface

Step 1 needs an update. Please replace this note with the following:

1. The R5.2.2 version of the AVN Forecast Preparation System (FPS) has a bug that will not let the GUI launch when a significant weather element is present in the metar. This bug will not cause the program to crash, but if a forecaster were to log out of the program, it will not restart as long as the significant weather element is present. The MDL developer has completed a fix to be delivered in Maintenance Release 5.2.2.2. R5.2.2.2 was implemented in January 2003.

    However, because of the operational importance of the problem, the decision was made that the **sites which will be installing R5.2.2 before R5.2.2.2 is available, and are currently using the AVNFPS operationally**, will be able to **download the fix off of the NOAA1 server.** In part 12 (R5.2.2 After-Install Procedures), procedure number 8 (Miscellaneous Procedures) we added procedure "C" to install the AvnFPS fix. The actual instructions for updating the patch are found in new attachment "k" of this addendum. Sites have a choice of installing R5.2.2.2 after the R5.2.2 upgrade, or install the patch by hand.

Step 3 needs an update. Please replace this note with the following:

3. The regional wave model grids for the Western North Atlantic, added to the 5.2.2 AWIPS baseline (received at a site over the SBN) have an error with the La1 (Latitude) location.

    A procedure to fix this will **not be added** to the addendum. Other options will be explored to deal with the problem including asking NCEP to send out a corrected model.   Until a fix is decided upon, please keep in mind that the model grid is shifted to the north by a half degree.

Step 4 needs an update. Please replace this note with the following:

4. After the 5.2.2 upgrade, WWA will run exclusively on linux. When you start WWA on your HP graphics workstation, it will export the display over from linux. However, this function was left out of the HP Xterm. This problem has a workaround if you wish to use it. It is found in Field Report 994 on the the wwa web site at:

    http://www.nws.noaa.gov/mdl/wwa/docs/FR_994_workaround.pdf

    You may wish to obtain FR at this time and perform the steps after the upgrade.

Part 5 : R5.2.2. Pre-install Script

Part 5, page 5-1, step 1, note 3 add the following error that can also be ignored if you see it.

com_shmAttach() shmget - No such file or directory

Part 5, Page 5-2, 3B, the "Note" in the box needs a small correction.

The second sentence in the box should say, "See step C, below."

Part 12 : R5.2.2. After-Install Procedures

8. Miscellaneous Procedures, p12-6, new procedure "C" needs to be added. Operational WFOs should install this on the day of the upgrade.

C.   The following is needed to fix the AvnFPS problem mentioned in the Preface in bullet #1.

The following should be done by all WFOs that use AvnFPS operationally. The fix below will be in maintenance release R5.2.2.2.

To fix the AVNFPS problems, go to new Attachment "k" *(AVNFPS Software Modification and Enhancement)* found in this addendum. Install the patch by following the instructions in the section entitled "Patch Installation Procedures."

8   Miscellaneous Procedures, p12-6, new procedure "D" needs to be added.
The OCONUS sites, AFC, GUM, HFO, PBP, SJU only, must do the following procedure.

D.   It appears that FSL had placed a site-specific file (i.e., acqPatternAddOns.txt) in the R5.2.2 baseline for OCONUS sites. Unfortunately, this causes the "site-owned" file to be overwritten.

Sites already corrected: AFG AJK VRH
Sites to be affected: AFC GUM HFO PBP SJU

To correct this oversight, NGIT saved a copy of the current version of the file to:

/awips/fxa/data/localization/LLL/LLL-acqPatternAddOns.txt.pre522

As a Post Installation step, the affected sites need to perform the following:

On DS1, as user "root" type:

(1)   **cd /awips/fxa/data/localization/LLL**
        cp -p LLL-acqPatternAddOns.txt LLL-acqPatternAddOns.txt.R522
        cp -p LLL-acqPatternAddOns.txt.pre522 LLL-acqPatternAddOns.txt
        chmod 775 *acqPatternAddOns*
        chown fxa:fxalpha *acqPatternAddOns*

(2)   Append the appropriate entries from LLL-acqPatternAddOns.txt.R522 into
        LLL-acqPatternAddOns.txt.

(3)   All sites need to do the following:
```
su - fxa
cd /awips/fxa/data/localization/scripts
./mainScript.csh -auxFiles
cd /awips/fxa/data
rcp -p acq_patterns.txt ds2:/awips/fxa/data
startIngest.ds1
```

(4)   For HFO and PBP (PX sites) only... should also do the following:
```
su - fxa
cd /awips/fxa/data
rcp -p acq_patterns.txt px1:/awips/fxa/data
rcp -p acq_patterns.txt px2:/awips/fxa/data
rlogin px1f
stopIngest.px1
startIngest.px1
```

8   Miscellaneous Procedures, p12-6, new procedure "E" needs to be added.
        The OCONUS sites, AFC, GUM, HFO, PBP, SJU only, must do the following procedure.

E.   Now that the 5.2.2 upgrade has been completed, WWA will run exclusively on linux. When
        you start WWA on your HP graphics workstation, it will export the display over from linux.
        However, this function was left out of the HP Xterm. This problem has a workaround if you
        wish to use it. It is found in Field Report 994 on the the wwa web site at:

                http://www.nws.noaa.gov/mdl/wwa/docs/FR_994_workaround.pdf

8   Miscellaneous Procedures, p12-6, new procedure "F" needs to be added.
        All sites should look at the following procedure to see if it is applicable to them.

F.   Configure The LDADWmoID.cfg File

        Following the 5.2.2 installation, the routerShefEncoder process was transmitting SHEF
        encoded products under incorrect WMO headers. Based upon the number of offices which
        encountered this problem, it was decided to establish the /awips/fxa/data/LDADWmoID.cfg
        configuration file in order to explicitly define   the WMO header which the routerShefEncoder
        would use to transmit all data which it processed.

        The /awips/fxa/data/LDADWmoID.cfg file has been created on the ds1 and ds2 servers at all
        sites. The default WMO header defined in the LDADWmoID.cfg file is SXXX90 CCCC
        where CCCC is the site identifier for the AWIPS system. For example at WFO Pittsburgh
        (AWIPS Site PBZ) the default WMO header   was SXXX90 KPBZ. The LDADWmoID.cfg

file contained the following information:

        SXXX90
        KPBZ
        M
        S
        x
        XX
        Y

The SXXX90 CCC WMO header was selected as the default WMO header because the NCF discards all products which it receives that start with a WMO header of SXXX90. It was recognized that many offices may not wish to transmit locally collected data on the SBN therefore the default is to use a WMO header which will be discarded.

If an office wants the routerShefEncoder to distribute on the SBN all LDAD data which the routerShefEncoder processes, the LDADWmoID.cfg file can be configured to define the WMO header which will be used. For example, when the routerShefEncoder processes locally collected LARC data at site PBZ, PBZ wanted to also broadcast the LARC data on the SBN. PBZ decided that they wanted to broadcast that data under the SRUS51 KPBZ WMO header and they also wanted to define the PIL to be PITRR1PIT. The LDADWmoID.cfg file was modified to contain the following information:

        SRUS51
        KPBZ
        R
        R
        1
        PIT

The first line in the LDADWmoID.cfg file defines the first 6 characters of the WMO header which will be used by the routerShefEncoder (In PBZ's example, the   first 6 characters of the WMO header are SRUS51). The second line of the LDADWmoID.cfg file defines the CCCC originating site for the WMO header (In PBZ's example, the CCCC originating site is KPBZ). The remaining 6 characters define PIL which will be used on the second line of the product to be transmitted   (In PBZ's example, the second line of the product will contain the PIL RR1PIT). Therefore whenever PBZ's routerShefEncoder encodes any data into SHEF, that SHEF data is transmitted under the SRUS51 KPBZ WMO header. An example an SRUS51 KPBZ product which was broadcast on the SBN and contains some recently collected LARC data is in the PITRR1PIT PIL. Here is an   example of the PITRR1PIT product:

SRUS51 KPBZ 111618
RR1PIT
:This is a comment line
:This LDAD data provided courtesy of NWS

.A FRKP1 20021211 Z DH154500 /DC200212111618 /DUS /HG   1.237

It is not necessary to stop/restart the routerShefEncoder process whenever the LDADWmoID.cfg file is updated. The routerShefEncoder re-reads the   LDADWmoID.cfg file each time that it processes data.

If your office chooses to customize the LDADWmoID.cfg file, there are 3 additional items to remember:

1   The /awips/fxa/data/LDADWmoID.cfg file should be updated on both ds1 (where the routerShefEncoder normally runs) and ds2 (where the routerShefEncoder runs when failed over from ds1 to ds2).

2   The routerShefEncoder transmits all data which it processes under the same WMO header. In Build 5.2.2.X, the routerShefEncoder can not selectively transmit some data while not transmitting other data. The ability for the routerShefEncoder to selectively transmit/not transmit certain data types will be delivered in Build OB1.

3   Save a copy of your locally modified LDADWmoID.cfg file in a safe location. The format of the LDADWmoID.cfg file changes in Build OB1 therefore I suspect that the 5.2.2.X version of the LDADWmoID.cfg file will be overwritten when Build OB1 is installed. Sites will need to add local site changes from the R5.2.2 version of the LDADWmoID.cfg file to the OB1 version after the OB1 upgrade.

Attachment "e" - R5.2.2 OHD Post-Install Instructions

The following are additions that need to be made to Attachment "e."

Page e-1, "A", step 2 needs a little clarification.

A. <u>**To uninstall the pre-processor (PX) software**</u>**:**   (No change made here)

    1. Call the NCF.   (No change made here)

    2. Log into an HP graphics Workstation as **root** (not awipsusr). Next, log into DS1 as **root**. On DS1 type:

        script -a /home/ncfuser/InstallPX522-uninstall.out (New command)
        cd /home/awipsadm/install/PX   (No change made here)
        ./InstallPX.sh uninstall   (No change made here)
        NOTE: answer **yes** when asked   (No change made here)

Page e-1, "B": There are 4 new lines added (see new command).   In the paragraph that starts with "Follow the install..........", after the "Installation Procedure for the AWIPS Preprocessor," start with F (not G)

B. <u>**To reinstall the PX software**</u>:

    Log into an HP graphics Workstation as root (not awipsusr).   (New line)
    Next, log into DS1 as root on DS1 type: (New line)
    `cd /home/awipsadm/install`   (New line)
    `tar -xf PX-Install522.tar`   (New line)

    Follow the install procedures delivered with the PXs, "Installation Procedure for the AWIPS Preprocessor," start with Part F (NIS), then do G "PX Software Installation Procedure " and H.   Please note that some sites may not need to do Part F. A softcopy of the PX instructions can be found on the following web page:

        http://www.ops1.nws.noaa.gov/awips_new.htm

Attachment "g" - R5.2.2 OHD Post-Install Instructions

The following are additions that need to be made to Attachment "g."

Part A - Post install instructions for Operational and Non-operational WFOs needs 2 additional steps, 7 and 8 to fix hydrology problems. These should be added to the end of part A on page g-6.

7.   Correct the name of the call script in the pop-up & pull-down menu definition files (**dtwmrc**) that start the HydroView application. This change **MUST** be made on **ALL** workstations.

As awipsusr on each graphical workstation. . .

A.   **cd /awips/fxa/awipsusr/.dt/**
B.   Open file dtwmrc for editing.
C.   Move to the section called "Hydro subpanel menu description"

```
# Hydro subpanel menu description


###
#
# Hydro subpanel menu description
#
###

Menu Hydro
{
  "Hydrologic Applications Menu"  f.title
    no-label                        f.separator
  "HydroView"                       f.exec "/awips/hydroapps/whfs/standard/bin/start_hv"
  "Riverpro"                        f.exec "/awips/hydroapps/whfs/standard/bin/start_riverpro"
  "Hydro database manager"        f.exec "/awips/hydroapps/whfs/standard/bin/start_hydrobase"

###
```

D.   At the end of the line that reads:

```
"HydroView"                       f.exec "/awips/hydroapps/whfs/standard/bin/start_hv"
```

Change the script name "start_hv" to "start_hydromap"

"HydroView"	f.exec "/awips/hydroapps/whfs/standard/bin/**start_hydromap**"

     E.   Save the file.

     F.   Restart the window manager to make this change effective. **Access the system control pop-up menu from the right mouse button and choose the Desktop option.**

     G.   Select the last option in the Desktop menu:

     Restart Dtwmrc

     The screen will go blank for a few seconds and then re-appear. HydroView should now be pointed to the correct script.

NOTE: This will need to be done on EVERY workstation for the option to appear on that workstation. Also, if you want to add it to the text workstation, edit the

     /awips/fxa/textdemo/.dt/dtwmrc file

     as noted in steps 7B through 7E above and then restart the window manager on text workstation as noted in 7F through 7G above.

8.   Correct the name of the call script in the D2D pull-down menu definition file (**appInfo.txt**) that starts the HydroView application. This change **<u>MUST</u>** be made on **<u>ALL</u>** workstations.

     As user fxa on each graphical workstation. . .

     A.   `cd /awips/fxa/data/`
     B.   Open file appInfo.txt for editing.
     C.   Move to the section called "# Hydro applications added by. . ."

```
#
# Hydro applications added by George Smith, HRL, 970528
#
DamCatalog | Dam Catalog          | run_damcat     |        | n | n | y | n | n
HydroBase  | Hydro Database Manager | start_hydrobase |      | n | n | y | n | n
HydroTimeSeries | Hydro Time Series | start_timeseries |     | n | n | y | n | n
HydroView  | HydroView            | start_hv       |        | n | n | y | n | n
HydroViewMPE | HydroView/MPE      | start_hmap_mpe |        | n | n | y | n | n
RiverPro   | RiverPro             | start_riverpro |        | n | n | y | n | n
SiteSpecific | Site Specific      | run_SiteSpecific |      | n | n | y | n | n
#
```

      D.   In the center of the line that reads:

| HydroView | HydroView | **start_hv** | | **n** | **n** | **y** | **n** | **n** |

            Change the script name "start_hv" to "start_hydromap"

| HydroView | HydroView | **start_hydromap** | | **n** | **n** | **y** | **n** | **n** |

      E.   Save the file.

      F.   Log out of D2D.

      G.   Log on to D2D. This should read in the changes from the appInfor.txt file.

    NOTE: This will need to be done on EVERY workstation for the option to appear on that workstation.

**Part B - <u>Post install instructions for Operational and Non-Operational RFCs</u> needs 2
additional steps, 5 and 6 to fix hydrology problems.** These should be added to the
end of part B.

5.   Correct the name of the call script in the pop-up & pull-down menu definition files (**dtwmrc**)
that start the HydroView application. This change **<u>MUST</u>** be made on **<u>ALL</u>** workstations.

 As awipsusr on each graphical workstation. . .

    A.   `cd /awips/fxa/awipsusr/.dt/`
    B.   `Open file dtwmrc for editing`
    C.   `move to the section called` # Hydro subpanel menu description

###
#
Hydro subpanel menu description
#
###

Menu Hydro
{
  "Hydrologic Applications Menu" f.title
   no-label   f.separator
  "HydroView"   f.exec "/awips/hydroapps/whfs/standard/bin/**start_hv**"
  "Riverpro"   f.exec "/awips/hydroapps/whfs/standard/bin/start_riverpro"
  "Hydro database manager"   f.exec "/awips/hydroapps/whfs/standard/bin/start_hydrobase"

###

        D.   `at the end of the line that reads:`

"HydroView"   f.exec "/awips/hydroapps/whfs/standard/bin/**start_hv**"

        `change the script name "start_hv" to`
`"start_hydromap"`

"HydroView"   f.exec "/awips/hydroapps/whfs/standard/bin/**start_hydromap**"

    E.   `Save the file`

    F.   Restart the window manager to make this change effective. **Access the system
control pop-up menu from the right mouse button and choose the Desktop**

option.

G. Select the last option in the Desktop menu:

Restart Dtwmrc

The screen will go blank for a few seconds and then re-appear. HydroView should now be pointed to the correct script.

NOTE: This will need to be done on EVERY workstation for the option to appear on that workstation. Also, if you want to add it to the text workstation, edit the

/awips/fxa/textdemo/.dt/dtwmrc file

as noted in steps 5B through 5E above and then restart the window manager on text workstation as noted in 5F through 5G above.

6. Correct the name of the call script in the D2D pull-down menu definition file (**appInfo.txt**) that starts the HydroView application. This change **MUST** be made on **ALL** workstations.

 As user fxa on each graphical workstation. . .

A. `cd /awips/fxa/data/`
B. `Open file appInfo.txt for editing`
C. `move to the section called` # Hydro applications added by. . .

```
#
# Hydro applications added by George Smith, HRL, 970528
#
DamCatalog | Dam Catalog          | run_damcat      |        |n|n|y|n|n
HydroBase  | Hydro Database Manager  | start_hydrobase |        |n|n|y|n|n
HydroTimeSeries | Hydro Time Series  | start_timeseries |       |n|n|y|n|n
HydroView  | HydroView            | start_hv        |        |n|n|y|n|n
HydroViewMPE | HydroView/MPE       | start_hmap_mpe |        |n|n|y|n|n
RiverPro   | RiverPro             | start_riverpro  |        |n|n|y|n|n
SiteSpecific | Site Specific       | run_SiteSpecific |       |n|n|y|n|n
#
```

D. `in the center of the line that reads:`

| HydroView | HydroView | **start_hv** | | |n|n|y|n|n |

`change the script name "start_hv" to`

"start_hydromap"

HydroView	HydroView	**start_hydromap**		n	n	y	n	n

    E.   **Save the file**

    F.   **Log out of D2D**.

    G.   **Log on to D2D**. This should read in the changes from the appInfor.txt file.

NOTE: This will need to be done on EVERY workstation for the option to appear on that workstation.

Attachment "i" Additional ICAT information

page 1-1, insert a new paragraph/box before "Background information." .

The **ICAT Users Manual** has a few small changes and has been upgraded. If you decide to use ICAT, go to the web page and download the updated manual.

Attachment "k" - AVNFPS Software Modification and Enhancement

The following is a new attachment. The procedure below will fix several AVNFPS problems. The following should be done by operational WFOs. The procedure below will be placed in R5.2.2.2, which will be available in late November.

SUBJECT	**:**	AvnFPS Software Modification and Enhancement
PURPOSE	**:**	Provide patch instructions to fix AvnFPS DRs.
AFFECTED SITES	**:**	All AWIPS Build 5.2.2 sites must install this patch
VERIFICATION STATEMENT	**:**	The patch and installation procedures were tested and verified at National Weather Service Headquarters, Silver Spring, MD
REINSTALLATION REQUIREMENTS	**:**	None
TIME REQUIRED	**:**	Approximately 15 minutes
SECURITY LEVEL	**:**	root
TECHNICAL SUPPORT	**:**	For questions or problems regarding these installation instructions or installing this patch, please contact Joel Moeller/MDL at 301-713-0024**.**

GENERAL

1) DR 11702: Changes needed to TAF QC for new TAF policy (D-31 -> NSWI 10-813) The TAF QC function has been updated to be consistent with new TAF policies specified in NWSI 10-813. The html documentation has been updated accordingly. 2) DR 11703: Unable to decode LDAD metars The METAR decoder has been fixed to properly decode LDAD METARs 3) DR 11704: MAV wind speeds calculated incorrectly The calculation of the model guidance wind speed for display in the text window has been corrected. 4) DR 11705: Unable to amend TAFs between 2330 and 2359Z Previously the date in the time stamp was always being set one day ahead for any TAF amended between the 23:30 - 23:59Z period. Even if it was corrected by the forecaster, the QC function would reset the date incorrectly prior to tranmission. This problem has been fixed so that the date is set correctly for amended TAFs created during this time. This includes adding a check for a valid WMO header time value. 5) DR 11725: Software crashing upon startup The AvnFPS monitoring GUI had periodically been hanging or crashing upon startup, most likely due to some memory handling problems. This problem has been fixed.

PROCEDURE

1. **Patch Installation Procedures**

The patch file ("P522_MDL_A100277.tar.Z ") must be downloaded form the NOAA1 server and unbundled to extract the new executable. The script will also automatically update the patch log file ("/awips/PatchLog") on ds1.

1. At a workstation, open a telnet window, log in as **awipsusr**, and remote log in to ds1 by typing:

    `rlogin ds -l root`

2. Change to the "/tmp" directory by typing:

    `cd /tmp`

3. Connect to the NOAA1 ftp server by typing:

    `ftp` 165.92.25.15

4. Once connected, log in as **ftp** user with a password of **4Awips!**.

5. Get the "P522_MDL_A100277.tar.Z " file by typing:

    ```
    binary
    cd tmp
    get P522_MDL_A100277.tar.Z
    bye
    ```

6. Untar the "P522_MDL_A100277.tar.Z " file to obtain the necessary installation scripts. Type:

    `zcat P522_MDL_A100277.tar.Z | tar xvf -`

    The following files should be present in the /tmp directory:

    avnfps_5.2.2.2.tar.Z
    install_A100277.sh
    uninstall_A100277.sh
    readme
    RC.sh
    PatchID.522.277

7. Install the new files on the ds and update the patch log file ("/awips/PatchLog") by typing:

    `./install_A100277.sh`

    Follow the instructions provided for updating the patch log file.

8. Type **exit** to end the session.

This completes the patch installation procedure.

NOTE: If you encounter a problem with the software update, you can uninstall the patch and return to the pre-patch version of the software by executing the following command in the same directory:

./uninstall_A100277.sh

The uninstall.sh script returns the AvnFPS software to the previous version and removes the patch ID from the patch log file.